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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,750	03/16/2004	Rudolph N. Yurkovich	66638-44519	3428
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THOMPSON COBURN, LLP				
ONE US BANK PLAZA				
SUITE 3500				
ST LOUIS, MO 63101				
			EXAMINER	
			COLLINS, TIMOTHY D	
			ART UNIT	PAPER NUMBER
			3643	
DATE MAILED: 07/17/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/801,750

Applicant(s)

YURKOVICH, RUDOLPH N.

Examiner

Timothy D. Collins

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-33 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 18 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claim calls for the forward and rearward pivots to move along the center axis of the vehicle, however no details showing how this occurs have been described. Also the figures do not show this either. More detail and explanation as to exactly how this occurs and the details of the pivot points are needed.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the details of the movement of the pivot points along the center axis as seen in claim 5 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by WO 96/36533.

a. With respect to the limitation "no other portion of the aerodynamic body being positioned in the opening" the examiner maintains that there is a section approximately near the intersections of the forward and rearward wings on both sides that is free of any "portion" positioned in the opening, this seen near the A

in figure 3 at least. As seen in the figures the opening which is needed according to the claims which is stated as being "between the left side and right side forward sections and the left side and right side rearward sections", therefore the examiner has chosen to choose between sections of the left forward and left rearward, on one side which opening is seen on the left side and also there is an opening symmetrically seen on the right side of the craft. Also note that because of the breadth of the claims this can also be seen as claiming only one opening and not any corresponding opening because the opening for example on the left is between the front and rear and left and right wing sections, it is just not symmetrically located or located in the middle of the left and right and front and rear wings.

5. Claims 1-9, 11-19 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5899410 to Garrett (hereinafter called 410).

b. Re claim 1, 410 discloses a vehicle 10 with a left side forward wing section (14 on the left), and a right side forward wing section (14 on the right) which is connected to the left side for movement between first and second positions see figures 4a (first) and 4b (second). Also a left side and right side rearward wing section (16 on the left and right). The left and right rearward wings being moveable between first and second relative positions see 4a and 4b. The wings being connected together for movement, with an opening between the left and right forward wings and also between the left and right rearward wings. The

Art Unit: 3643

opening is seen in the figure 4a at least, in that between the left forward and rearward wings the opening is also between the right forward and rearward wings, the opening on the left side of the craft is the one referenced. The opening can be seen to be between all the wings, however it is closer to the ones on the left side in the given case. Also note that because of the breadth of the claims this can also be seen as claiming only one opening and not any corresponding opening because the opening for example on the left is between the front and rear and left and right wing sections, it is just not symmetrically located or located in the middle of the left and right and front and rear wings. See below modified figure.



- a. Re claim 2, 410 discloses that the left and right side forward wing sections and left and right rearward wing sections are in a common plane, as seen in figure 3 and also in the specification where the craft is referred to as being a coplanar joined wing craft.
- b. Re claim 3, 410 discloses a forward pivot assembly as seen in the figure above.
- c. Re claim 4, 410 discloses a rearward pivot assembly as seen in the figure above.

d. Re claim 5, as seen in the figures of 410 it can be seen that the craft has a center axis and pivots that are on the center axis. The rear pivot moving along the axis and the front pivot moving with respect to the rear along the axis.

Because of the lack of detail in the applicant's figure with respect to the movement of the pivot points and with just the notion that the pivots are covered by the forward and rearward glove sections in as much as applicant's pivots move along the center axis, so does the 410 reference.

e. Re claim 6, 410 discloses that the vehicle as a center axis, the axis that goes from the front to the rear and midway between the wings, the wings projecting laterally to the left and right of the center axis. See the figures.

f. Re claim 7, 410 discloses right and left side pivot assemblies as seen in the figures 4a and 4b at least. The pivots are labeled as number 25.

g. Re claim 8, 410 discloses that the pivots on the wings (25) move along the transverse axis when the front wings move from position 1 to position 2. This can be seen in the figures 4a and 4b which show that the craft is wider and narrower when the wings pivot.

h. Re claim 9, 410 discloses that the first and second positions correspond to first and second cumulative areas as seen in figures 4a and 4b. Also as can be seen from the figures and the dotted lines indicating what is covered in each position that the first position has a first cumulative area that is larger than the second cumulative area.



- i. Re claim 11, 410 discloses from the figures 4a and 4b that the first AR is larger than the second AR.
- j. Re claim 12, 410 also discloses from figures 4a and 4b that the first span is greater than the second span.
- k. Re claim 13, 410 also discloses from figures 4a and 4b that the first sweep angle is smaller than the second sweep angle.
- l. Re claim 14, see rejections of claims 1 and 7 above.
- m. Re claim 15, see rejections of claims 14 and 2 above.
- n. Re claims 16 and 17, see rejections of claims 14,3 and 4 above.
- o. Re claim 18, 410 discloses in numbers 25 on the right and left that the wings are connected with pivot assemblies.
- p. Re claim 19, see rejections of claims 14 and 9 above.
- q. Re claim 21, see rejection of claims 14 and 11 above.
- r. Re claim 22, see rejection of claims 14 and 12 above.
- s. Re claim 23, see rejection of claims 14 and 13 above.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5899410 as seen above in the rejections of claims 1-9, 11-19 and 21-23.

a. Re claims 10 and 20, 410 does not specifically disclose that the cumulative area of the first position is at least 30% larger than that of the second, however it would have been obvious to one of ordinary skill in the art to have optimized the area change to allow for the slowest and fastest sections of the flight envelope of the craft. Therefore because of the lack of reason and criticality in the applicant's specification referring to the 30% change in area it would have been obvious to use the optimum change for the design flight envelope, whatever that may be. This would be done so that the craft is efficient at all points in the flight regime and can land very slowly and still cruise at a high mach number.

#### ***Response to Arguments***

7. Applicant's arguments filed 5/2/06 have been fully considered but they are not persuasive.

a. Re applicant's argument that claim 5 is enabled, the examiner maintains that the claim is NOT enabled because the specification has no detail of the movement of the wings and merely states that they do move, it does not detail HOW they move. Also the figures are objected to for the same reasons, they do NOT SHOW DETAILS of the movement mechanisms. It is not known how these

mechanisms function. NOTE a detailed view in the figures is needed of the pivots and movements and also a detailed description is needed.

b. Re applicant's argument that "no other portion of the aerodynamic body being positioned in the opening", the examiner maintains that there is a section of the 96/36533 publication approximately near the intersections of the forward and rearward wings on both sides that is free of any "portion" positioned in the opening, this seen near the A in figure 3 at least. As seen in the figures the opening which is needed according to the claims which is stated as being "between the left side and right side forward sections and the left side and right side rearward sections", therefore the examiner has chosen to choose between sections of the left forward and left rearward, on one side which opening is seen on the left side and also there is an opening symmetrically seen on the right side of the craft. Also note that because of the breadth of the claims this can also be seen as claiming only one opening and not any corresponding opening because the opening for example on the left is between the front and rear and left and right wing sections, it is just not symmetrically located or located in the middle of the left and right and front and rear wings. Also with respect to the statements of the applicant with regard to the rejections under 102 with respect to the '410 reference the applicant states that the claims call for "an opening between left and right forward wing sections and left and right rearward wing sections". The examiner has provided an explanation in the rejection that states that this opening is between left and right forward wing sections and left and right

rearward wing sections, it may not be symmetrically placed with respect to both sides of the craft, however it meets the broad limitations of the claims as stated. The applicants claims call for AN opening, not two openings and not plural openings. Therefore the examiner has found a reference that clearly shows AN opening in the wing which falls BETWEEN the wings as specified by the claims. Also it is noted that the applicant states that the rejection is based on only one half of the aircraft disclosed in the Garrett reference. The examiner maintains that the entire Garrett aircraft is used because both left and right wings and front and rear wings are used for the rejection however the claim is so broad that the reference meets the claim on the left and right sides, however only the left side OPENING was used in the rejection. Also it is noted that no rule or law states that an ENTIRE reference must be used to make a rejection.

c. Re applicant's argument with respect to claims 10 and 20 in the 103 rejection, the applicant states that the examiner stated that the subject matter of the claims "whatever that may be" was rejected. This statement is a misrepresentation of what the examiner actually stated in the rejection. The examiner stated that "it would have been obvious to use the optimum change for the design flight envelope, whatever that may be". The "whatever that may be" phrase refers to the flight envelope, not the limitations of the claim. The flight envelope of the aircraft is made of the altitude, speed, attitude, and other flight specific attributes. Also the examiner maintains that the motivation for such statements was made in the original rejection and is seen in that the examiner

stated "This would be done so that the craft is efficient at all points in the flight regime and can land very slowly and still cruise at a high mach number", which is a clear MOTIVATIONAL statement.

### ***Conclusion***

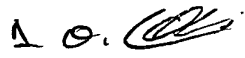
**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy D. Collins whose telephone number is 571-272-6886. The examiner can normally be reached on M-F, 7:00-3:00, with every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Timothy D. Collins  
Patent Examiner  
Art Unit 3643 7/11/06